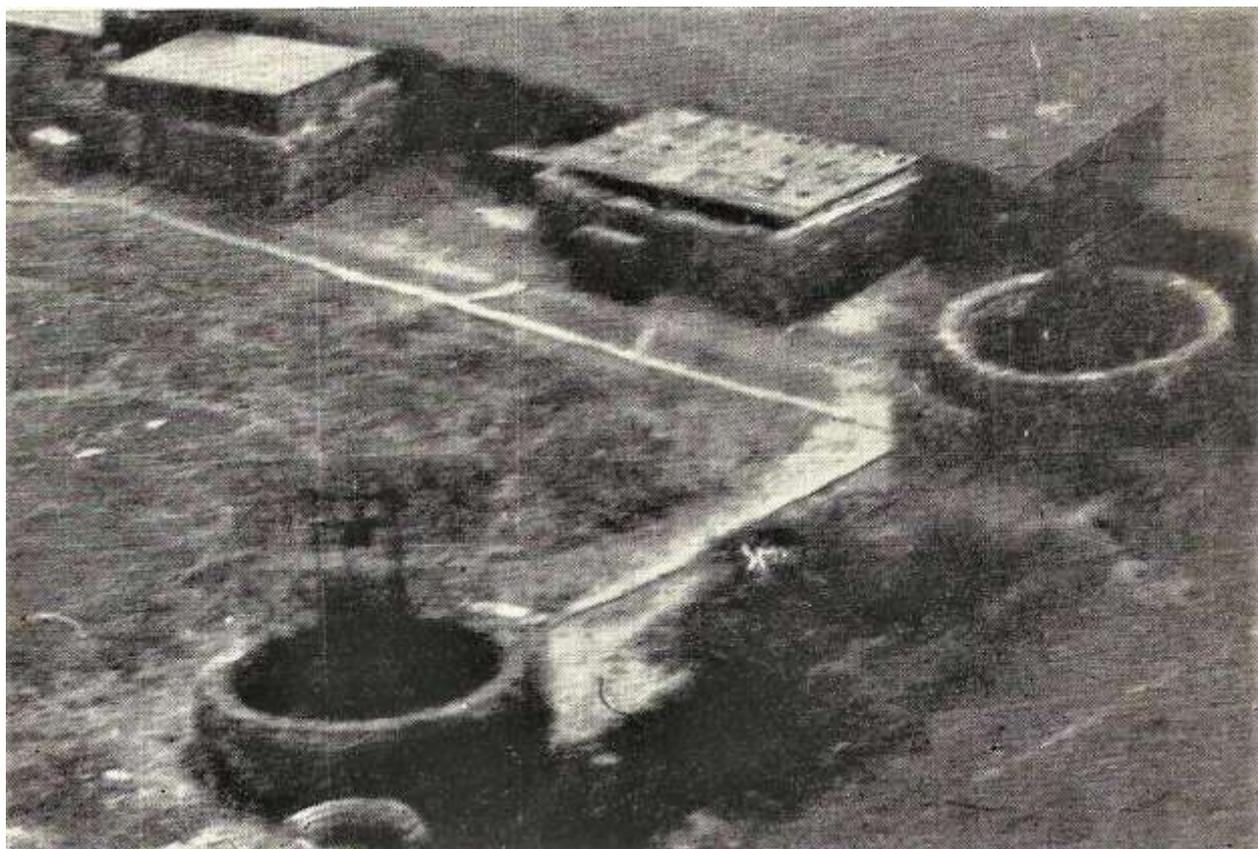




e-DEFENCE ELECTRONICS NEWSLETTER

The e-NEWSLETTER OF THE DEFENCE ELECTRONICS HISTORY SOCIETY
No 103: February 2021 Part I



DELUSION

February 2021 is the 80th anniversary of a rather odd meeting. This was convened on the 23rd by Air Marshal Joubert de la Ferté, to consider whether Germany's military possessed radar. Odd, because a report on the radar of the scuttled German *Panzerschiff* 'Graf Spee' by radar scientist Labouchère Bainbridge-Bell had shown conclusively that Germany certainly did have radar; but that report apparently had not persuaded Robert Watson Watt, then the Scientific Adviser to the Air Ministry. Scientist RV Jones attended with the above photo, taken the day before by the PR Spitfire of Flying Officer WK Manifould, showing the *Freya* radars at Audeville, France, coupled with the news that their 120MHz transmissions had been intercepted and analysed on an oscilloscope by Derek Garrard of Jones' staff. The fact was thus proven beyond doubt; it is difficult to avoid the conclusion that Watson Watt's view that Germany could not possibly have radar had maintained RAF High Command in the delusion that Britain alone possessed this critical sensor. DEHS members will doubtless think of many more instances, perhaps even up to the present day, where a belief doggedly held by a very senior individual has delayed progress for many months!

In Part I, **eDEN #103** focusses largely upon Air Force applications of military electronics. **Feedback** opens with **Alan Hartley-Smith** and **Brian Austin** adding to our previous month's content, and, following our look at **Arthur Bauer's** latest website addition, an online lecture on **Nachtfee**, both Alan and Brian contribute articles – Brian, the Obituary of **Dr David Proctor**, which follows that of **AOC stalwart Dr Jim Wickes**, and Alan, **Marconi's development of supersonic buoys**, one of whose uses was markers for D-Day shipping. **Robert Soek** draws our attention to a 'sonic warfare' development by none other than **Leonardo da Vinci**, and its reconstruction in Italy; this device had the potential for decoy force multiplication and so anticipated both **Moonshine** and **Garmisch-Partenkirchen** by several hundred years! Pre-World War 1, **Clive Kidd** provides an interesting addition to a current on-line debate about the invention of the superhet, with a 1913 Royal Navy report from the **HMS Collingwood Historic Collection** on a **US synchrodyne**, using an arc as the source of the beat note. The tireless Clive also produced a **1926 Greenwich Naval Staff College** lecture on "**Past and Present Policy in connection with Overseas and Fleet Wireless Communications**" from a National Archives Admiralty file on the '**History of W/T**'.

We move on to Part 3 of our series on **Generators for Airborne Power**, which this month considers that maintenance requirements to keep the generators running – marvel at the **Armature Growler** and the **Mica Undercutter!** Next, **Tony Waller's** popular series **To Restore or Not Restore: That is the Question**, where in his episode 11 we begin the study of how to create transformers, an endless issue for those restoring high-cycle equipment in particular.

A new **eDEN** series then begins, considering the relatively new area of study known as '**conflict archaeology**' and differing international approaches to conservation of military heritage. **Hilde van der Heul's** MA, gained with distinction at **UCL** (whose expertise in historic radar is well known to DEHS), discusses **applications of conflict archaeology in Holland**, and **DEHS members are invited to consider and debate its relevance in the UK**. Next month, **David Robertson** will continue the series, taking as his example the fate of the **vanished Ace High tropospheric scatter dishes at Stenigot**.

We then move on to the present, with news of a **Eurofighter radar upgrade**, and a note from **BAE** of their joint work with **UAVTEK** on **bug drones**; and Tailpiece rounds off with a request from **Andy Young** for details of the use of RAF '**Computer Manual Type 13**' - **your input please!**

In **Part II** we concentrate upon one of Malvern's most advanced projects of WW2 – **the AGLT (Airborne Gun-Laying Turret)**, a microwave radar-controlled rear gun turret used operationally in Lancasters of the RAF's densely-packed Main Force bomber stream, where a particular issue was, of course, Identification, Friend or Foe, which in turn led to the use of the infra-red part of the spectrum; this reprinted monograph by **CJ Carter & WR Beakley** of the original AGLT team will extend over this issue and March's **eDEN #104**, and March's **Transmission Lines** will feature an article by **Dr Mike Diprose** on AGLT's accompanying **infra-red F and Z** systems.

Tailpiece 2 closes this issue with, most fittingly, a look at the 2021 programme of the **Malvern Radar and Technology History Society** who have done so much to preserve this aspect of our heritage.

Thanks, as always, this month to **Mike Dean**. Next month, more news and articles, so meanwhile, suggestions for improvements, offers of articles and all general comments to me please at philjudkins@btinternet.com or info@dehs.org.uk.

Warmest regards all, and keep safe,

Phil

Phil Judkins, DEHS Chairman.

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NEWCOMEN SOCIETY

The latest edition of the Newcomen Society's excellent **International Journal for the History of Engineering And Technology** (Volume 90 No 1) contains among its very readable articles a first-class paper by **James Mills** of **Monash University** on "**The transfer and exploitation of German air-to-air rocket and guided missile technology by the Western Allies after World War II**". I can thoroughly recommend this paper to all members of DEHS – very well worth a read!

DEHS member **Nina Baker's** book "**Adventures in Aeronautical Design: the life of Hilda M Lyon**" is also reviewed, gaining a very strong recommendation; it is available print-on-demand from Amazon.

FEEDBACK

1. **Alan Hartley-Smith** adds to his article on data displays in eDEN #102, that the system on which he worked was initially designed for use in the Swedish air defence system and later incorporated in UK systems - the photo below shows them in the Cold War Operations Room at the RAF Air Defence Radar Museum, Neatishead.



2. **Brian Austin** points out that in eDEN 102's quiz answers, we referred to 'Howard Dainty' – we should of course have said 'Horace Dainty'.

HISTELCON 2021

18-20 August 2021, Moscow, Russia

HISTELCON is an IEEE Region 8 conference covering topics in the area of Technology History.

The theme for HISTELCON 2021 is: "The evolution of computer architectures and system software, the influence of social aspects on the development of computers". However, this is only the main theme and papers on all other aspects of the History of Technology relevant to IEEE scope will be welcomed.

Abstract submission deadline: - June 12th

Full paper submission deadline: - July 3rd

Paper acceptance notification - July 17th

Final paper acceptance notification - July 31st

Suggestions for or questions about papers should be sent as soon as possible to: Sergei Prokhorov: sergei.prokhorov@computer.org

Because of the COVID-19 Pandemic it is not yet certain whether the conference will operate as a Virtual On-line event or whether it will be held in the traditional manner as an On-site event in Moscow. The language of the conference will be English (including lectures and printed material).

The UK's Professor Tony Davies is on the Organising Committee – tonydavies@ieee.org